



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of : 10/29/02  
Matthew J. Carey et al. : Group Art Unit: 1773  
Serial No.: 09/916,390 : Examiner: Holly C. Rickman  
Filed: 07/26/2001 : San Jose, California

*Handwritten signature and date 11/20/02*

**Title: DUAL-LAYER PERPENDICULAR MAGNETIC RECORDING MEDIA  
WITH LAMINATED UNDERLAYER FORMED WITH  
ANTIFERROMAGNETICALLY COUPLED FILMS**

**DECLARATION BY ALL INVENTORS OF PRIOR INVENTION IN THE UNITED  
STATES TO OVERCOME CITED PATENT (37 CFR § 1.131)**

We, the undersigned inventors of the subject matter claimed in the above-identified patent application, declare as follows:

1. This declaration is to establish completion of the invention in this application in the United States on a date prior to August 25, 2000, which is the filing date in the United States of a provisional application 60/227,943 corresponding to non-provisional application 09/939,190 which was published on March 2, 2002 as US2002/0028357 and cited by the Examiner to reject claims of this application under 35 USC §§ 102(e) and 103(a).

2. We are all of the inventors of the subject matter of pending claims 1-9, 11-24 and 26 in the above-identified patent application filed July 26, 2001.

3. An IBM invention disclosure describing the invention that is claimed in the pending claims of this application was written prior to August 25, 2000 and was submitted to IBM's Intellectual Property Law department at the IBM Almaden Research Center in San Jose, California, USA prior to August 25, 2000.

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4. The invention of pending independent claims 1 and 15, one embodiment of which includes a laminated underlayer of  $\text{IrMn}/\{\text{CoFe}/\text{Ru}\}_4/\text{CoFe}$  with five CoFe ferromagnetic layers, four Ru spacer layers, and a bottom IrMn antiferromagnetic layer, as described with respect to Fig. 4 of this application, was actually reduced to practice in San Jose, California USA prior to August 25, 2000. Fig. 4 of this application is identical to one of the figures in the previously described IBM invention disclosure.

5. The conception and all work in reducing the invention of pending claims 1 and 15 to practice occurred in the United States.

6. From the above statements and attached documents it can be seen that the invention of pending claims 1 and 15 in this application was made in the United States prior to the effective date of the cited reference.

7. Each of us hereby further states that all statements made herein of his own knowledge are true and all statements made on information and belief are believed to be true, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and with the knowledge that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


This declaration was executed by each of us on the date and at the location indicated next to our respective names.

  
Mathew J. Carey

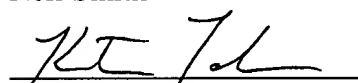
Executed at San Jose, CA on 11/1/02 <sup>MSC</sup>

  
Yoshihiro Ikeda

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